Date: Thu, 6 May 93 20:11:51 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #550
To: Info-Hams

Info-Hams Digest   Thu, 6 May 93   Volume 93 : Issue 550

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 6 May 1993 22:39:34 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!news.ucdavis.edu!othello.ucdavis.edu!
ez006683@network.UCSD.EDU
Subject: Cellular Scanner
To: info-hams@ucsd.edu

mikey@slic.cts.com (Mike Shirley) writes:

In article <9305041901.AA17674@cmr.ncsl.nist.gov> rc@cmr.ncsl.nist.gov writes:

> Quoted from p.28 of the May 3, 1993, issue of Washington Business, a Monday
> section of the Washington Post:
>
>   "..... [House] Subcommittee [on telecommunications and finance] members
> saw a newly purchased off-the-shelf cellular telephone become a 'scanner'
> capable of picking up cellular conversations around Capitol Hill.
>   "It took a technician maybe three minutes to reprogram the phone's codes

> so it could be used for eavesdropping. 'Every cellular phone is a scanner,
> and they are completely insecure', Sun Micro's Gage said.

    If all recievers that can automatically switch between more than 3 channels and hear the cell band are illegal (or will be next year) to produce. What about the phones themselves were they exempted? They can switch between all the channels automatically. As far as listening in manually like the article describes, it is usually only one channel at a time. On the Radio Shack phones you have to type in the CHANNEL # to monitor or transmit on.

Dan

--
--
* Daniel D. Todd   Packet: KC6UUD@WA6RDH.#nocal.ca.usa   *
*   Internet: DDTODD@ucdavis.edu   *
*   Snail Mail: 1750 Hanover #102   *
*   Davis CA 95616   *
--
*   I do not speak for the University of California....   *
*   and it sure as hell doesn't speak for me!!   *
--

Date: Thu, 6 May 1993 22:16:09 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!usc!
cs.utexas.edu!utnut!torn!nott!bnrgate!bnr.co.uk!uknet!strath-cs!cen.ex.ac.uk!
cs92smw@network.UCSD.EDU
Subject: FM Transmission of music.(Pirate stations)
To: info-hams@ucsd.edu

 I'm interested in how to transmit music to a local village on FM as part of a Physics 3rd year project. But I am not sure of the transmitter required or how to connect it up to a music system. Any help would be most appreciated. Also is there any literature that I could send off for on this subject. Where can one buy the equipment from, at a reasonable price, since I am a hard up student.

Date: Thu, 6 May 1993 22:03:56 GMT
From: agate!howland.reston.ans.net!zaphod.mps.ohio-state.edu!moe.ksu.ksu.edu!
hobbes.physics.uiowa.edu!newsrelay.iastate.edu!news.iastate.edu!

sysad.cnde.iastate.edu!njohnson@ames.arpa
Subject: German Ham License
To: info-hams@ucsd.edu

I will be going on a Trip to Germany soon. Is there anyway I can get a temporary
license so that I can operate while I'm there?

--
Neil Johnson, N0SFH | Systems Administrator
njohnson@cnde.iastate.edu | Center for Nondestructive Evaluation
njohnson@sysad.cnde.iastate.edu | Institute for Physical Research & Technology
neil@iastate.edu | Iowa State University
| Ames, Iowa

Date: Thu, 6 May 1993 22:45:07 GMT
From: netcomsv!netcom.com!adler@decwrl.dec.com
Subject: PVC tubing for mast?
To: info-hams@ucsd.edu

In article <1sbhn6$mq5@network.ucsd.edu> jgervais@weber.ucsd.edu (Joe Gervais)
writes:
>>From: markm@bigfoot.sps.mot.com (Mark Monninger)
>
>>Does anyone have any experience using PVC tubing for antenna support
>>masts? I'm thinking of putting up an inverted-vee and would like to get
>>the apex up 40 feet or higher. I have heard of people using PVC tubing
>>to construct masts but have never heard any details about it. Is
>>schedule 40 rigid enough? What diameter would be required? How well
>>does it hold up?
>>
>
>I'm using a 25 ft. PVC mast for my vertical and it's quite
>stable (Sched. 40, 1.75" dia.). Much higher than that though,
>and the thing goes to mush (my mast is in 5 ft. sections, so
>I add/delete as necessary).
>
>I don't think the 2" dia. pipe would be good for 40+ feet,
>Unless of course you could support the bottom half against
>your house or a tree. Barring that, hunt for a larger diameter
>pipe, or plant something that grows fast....

I've got an alternate method that you might want to
try. But I want you to note that I have NOT tried
what I'm about to suggest. It could be a complete bust.

I seems to me that using three 1" or 2" lengths of thick

walled plastic pipe which have been strapped together might
be stiffer and more stable than a single 4" pipe. Though I
don't know if they would be stiff enough for a forty foot
mast. You could also try epoxying or gluing together the
pipes along their entire lengths. Or, find some sort of
adhesive backed material that you can helically (or is that
spirally) wrap around the whole mast. This would stiffen it
even more and protect the PVC from UV light.

This might not be a new or original idea. If anyone actually
builds something along the lines I've suggested please let me
know about the results.

Date: 7 May 1993 00:01:46 GMT
From: sdd.hp.com!hpscit.sc.hp.com!news.dtc.hp.com!col.hp.com!bobw@decwrl.dec.com
Subject: Rover Antennas
To: info-hams@ucsd.edu

zlau@arrl.org (Zack Lau) writes:
> I know we have a month to go before the June VHF
> contest, but perhaps people might benefit from these
> questions?
>
  [stuff deleted]

> Finally, why can't a sports car be used for mountain topping?
> I thought they are suppose to excel on twisty mountain roads.
> I don't know about you, I'd rather be moving with traffic than
> going at 45 mph in an underpowered van, particularly if the
> great spot is 300 miles away.
>
> Granted, they aren't designed for off road use, but I've not
> heard of a serious VHF group that uses a site that doesn't have
> some sort of usable access road. And for a rover station, it
            ^^^^^^^^^^^^^^^^^^^^
> might not pay to spend the extra time getting to really great
> spots. Equipment performance has gotten to the point where line
>
   Last June I got my Jeep stuck in a snowdrift that was across
   a "usable access road". I also used several sites that
   were accessible by 4WD only or at least a high-clearance
   vehicle with mud/snow tires. June is just barely summer above
   10,000 feet.

   There certaintly is a speed tradeoff when you wander back in
   off the paved highway. But then again you don't get as many

tourists staring at you while you operate.

- Bob KB0CY

Date: 7 May 93 00:20:40 GMT
From: news-mail-gateway@ucsd.edu
Subject: Weekly Solar Terrestrial Forecast & Review for 07 May
To: info-hams@ucsd.edu

--- SOLAR TERRESTRIAL FORECAST AND REVIEW ---
May 07 to May 16, 1993

Report Released by Solar Terrestrial Dispatch
P.O. Box 357, Stirling, Alberta, Canada
T0K 2E0
Accessible BBS System: (403) 756-3008

SOLAR AND GEOPHYSICAL ACTIVITY FORECASTS AT A GLANCE

10-DAY SOLAR/RADIO/MAGNETIC/AURORAL ACTIVITY OUTLOOK

NOTE: We have replaced the "Solar Activity" column with forecast values of the 10.7 cm solar radio flux. These values are "best estimates" compiled at the time of this report.

	10.7 cm	HF Propagation							SID				AU.BKSR				Mag	Aurora		
	SolrFlx	LO	MI	HI	PO	SWF	%MUF	%	ENH	LO	MI	HI	LO	MI	HI	%	K Ap	LO	MI	HI
07	120	VG	G	F	F	30	-15	70	30	NA	NA	NA	03	10	25	35	3 15	NV	LO	LO
08	125	G	F	VP	P	30	-30	60	30	NA	NA	NA	04	30	40	25	5 27	NV	LO	MO
09	125	G	G	P	P	30	-20	65	30	NA	NA	NA	03	20	30	30	4 20	NV	LO	MO
10	125	G	G	P	F	30	-15	65	30	NA	NA	NA	02	15	25	30	3 15	NV	NV	MO
11	120	VG	G	F	F	30	-15	65	30	NA	NA	NA	02	10	20	35	3 15	NV	NV	LO
12	120	VG	G	F	F	30	-10	65	30	NA	NA	NA	02	10	15	35	3 13	NV	NV	LO
13	115	VG	G	F	F	30	-10	65	30	NA	NA	NA	02	10	15	35	3 13	NV	NV	LO
14	115	VG	G	F	F	30	-10	65	30	NA	NA	NA	02	10	15	35	3 13	NV	NV	LO
15	115	VG	G	F	F	30	-15	65	30	NA	NA	NA	02	15	25	35	3 15	NV	NV	MO
16	115	G	G	P	P	30	-15	60	30	NA	NA	NA	03	20	30	30	4 20	NV	LO	MO

DEFINITIONS:

Date (day only)

10.7 cm SOLaR radio FLuX forecast
HF Propagation Conditions for LOw, MIddle, HIgh, and POlar areas (see below)
HF Short Wave Fade Probability (in %)
HF Maximum Usable Frequency in +/- percent above seasonal normals.
HF Prediction CONfidence Level (in %)
VHF Sudden Ionospheric ENHancement Probs (in %), weighted for low-mid lats
PROBability of "s"poradic E (Es) during the UT day for low, mid and high lats
VHF AUroral BacKScatteR Probs (in %) for LOw, MIddle and HIgh Latitudes
VHF Overall Global DX Potential (in %) - weighted for Low and Middle latitudes
Geomagnetic Activity Kp Index (peak value - see below)
GeoMAGnetic Activity Ap Index (peak value - see below)
AURORAl Activity for LOw, MIddle and HIgh Latitudes (see below)

HF Prop. Quality rated as: EG=Extremely Good, VG=Very Good, G=Good, F=Fair,
   P=Poor, VP=Very Poor, EP=Extremely Poor.
Probability of Sporadic E (Es) for the various latitudes is given in percent.
Kp Planetary Index rated: 0=V.Quiet, 1=Quiet, 2=Unstld, 3=Active, 4=V.Active,
   5=Minor Storm, 6=Major Storm, 7=Maj-Sev Storm, 8=Severe Storm, 9=V.Severe.
Ap Planetary Index rated: 0-7=Quiet, 8-16=Unstld, 17-29=Active,
   30-49=Minor Storm, 50-99=Major Storm, Severe Storm >=100.
Auroral Activity rated: NV=Not Visible, LO=Low, MO=Moderate, HI=High,
   VH=Very High.

PEAK PLANETARY 10-DAY GEOMAGNETIC ACTIVITY OUTLOOK (07 MAY - 16 MAY)

EXTREMELY SEVERE										HIGH
VERY SEVERE STORM										HIGH
SEVERE STORM										MODERATE
MAJOR STORM										LOW - MOD.
MINOR STORM		*								LOW
VERY ACTIVE		***	**						*	NONE
ACTIVE	**	***	***	**	*	*	*	*	**	***	NONE
UNSETTLED	***	***	***	***	***	***	***	***	***	***	NONE
QUIET	***	***	***	***	***	***	***	***	***	***	NONE
VERY QUIET	***	***	***	***	***	***	***	***	***	***	NONE
Geomagnetic Field Conditions	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Anomaly Intensity
	Given in 8-hour UT intervals									

CONFIDENCE LEVEL: 60%

NOTES:

Predicted geomagnetic activity is based heavily on recurrent phenomena. Transient energetic solar events cannot be predicted reliably over periods in excess of several days. Hence, there may be some deviations from the predictions due to the unpredictable transient solar component.

60-DAY GRAPHICAL ANALYSIS OF GEOMAGNETIC ACTIVITY

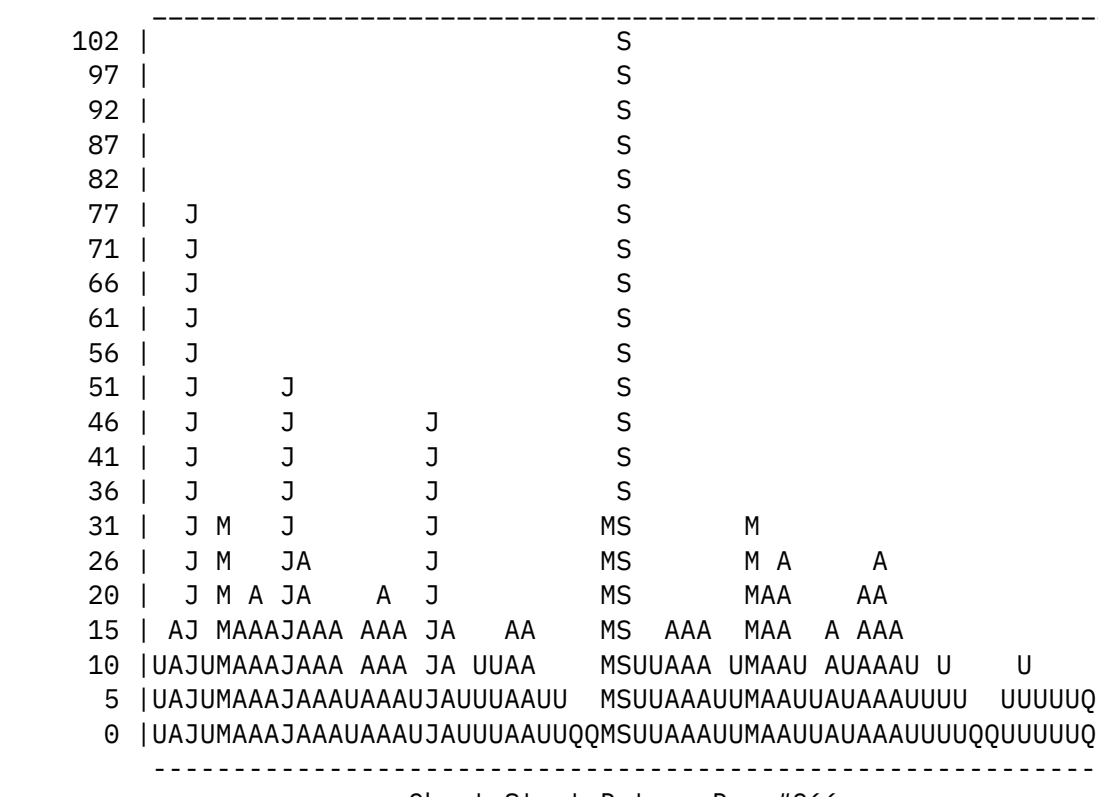
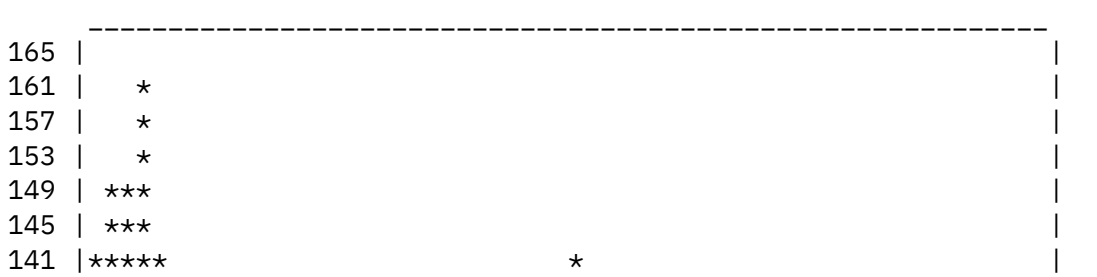
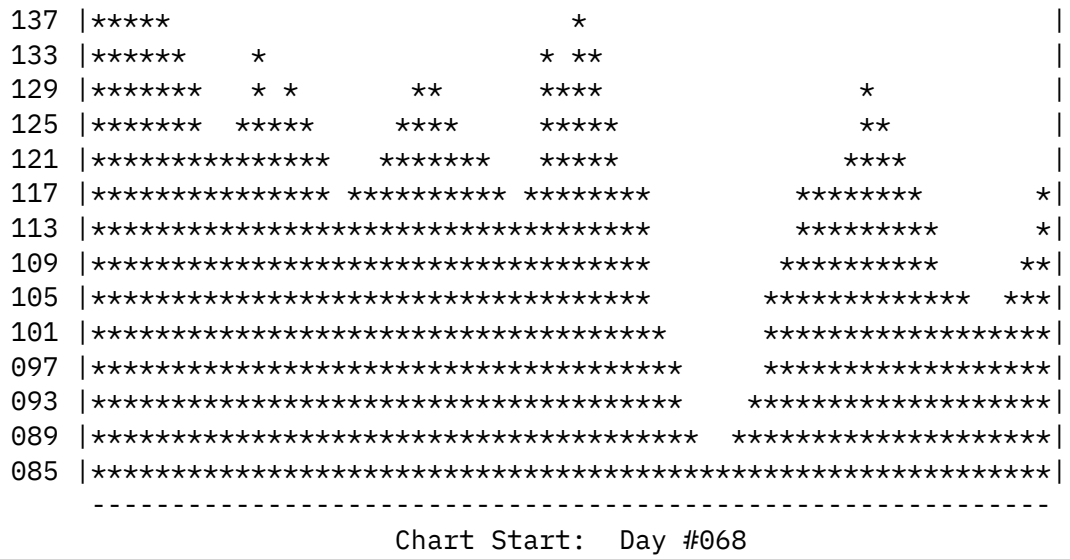


Chart Start Date: Day #066

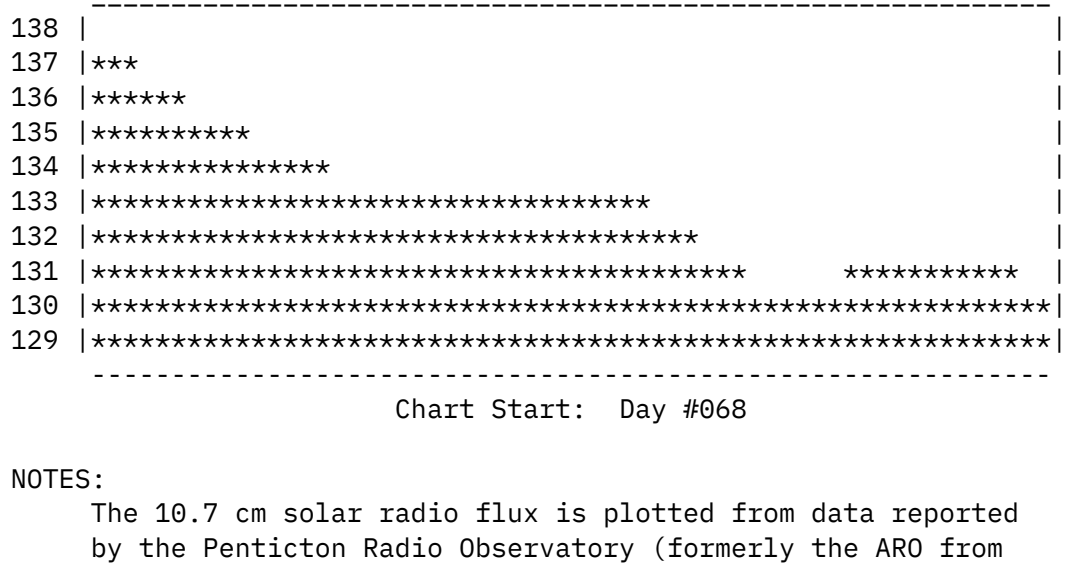
NOTES:
This graph is determined by plotting the greater of either the planetary A-index or the Boulder A-index. Graph lines are labelled according to the severity of the activity which occurred on each day. The left-hand column represents the associated A-Index for that day.
Q = Quiet, U = Unsettled, A = Active, M = Minor Storm, J = Major Storm, and S = Severe Storm.

CUMULATIVE GRAPHICAL CHART OF THE 10.7 CM SOLAR RADIO FLUX





GRAPHICAL ANALYSIS OF 90-DAY AVERAGE SOLAR FLUX



NOTES:

The 10.7 cm solar radio flux is plotted from data reported by the Penticton Radio Observatory (formerly the ARO from Ottawa). High solar flux levels denote higher levels of activity and a greater number of sunspot groups on the Sun. The 90-day mean solar flux graph is charted from the 90-day mean of the 10.7 cm solar radio flux.

CUMULATIVE GRAPHICAL CHART OF SUNSPOT NUMBERS

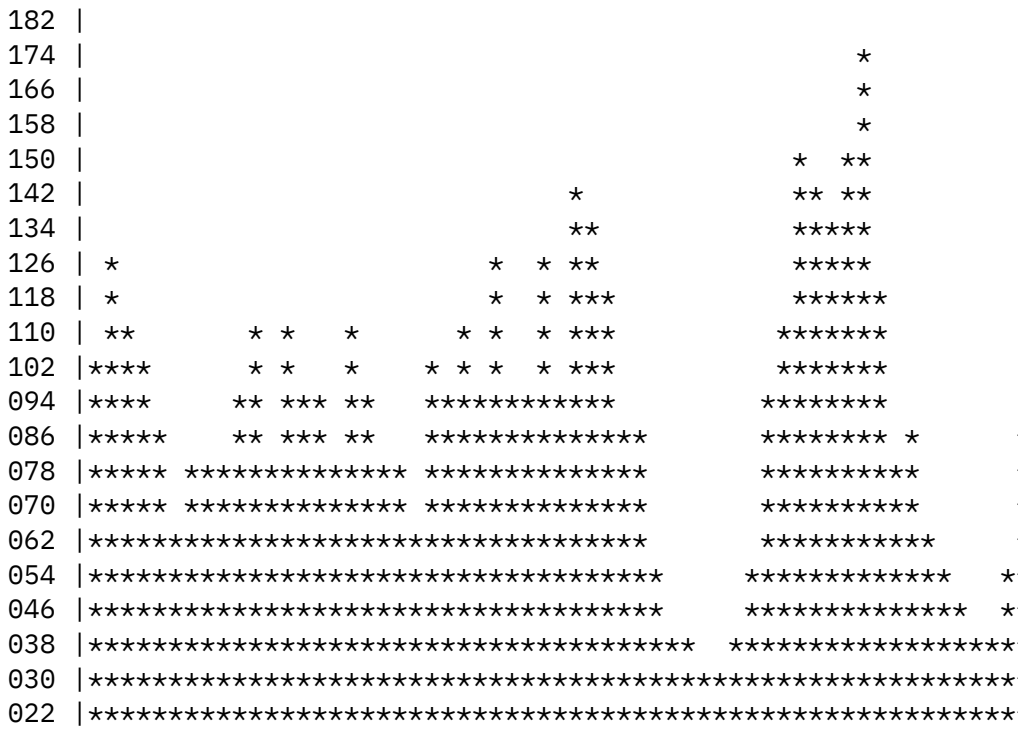


Chart Start: Day #068

NOTES:
The graphical chart of sunspot numbers is created from the daily sunspot number counts as reported by the SESC.

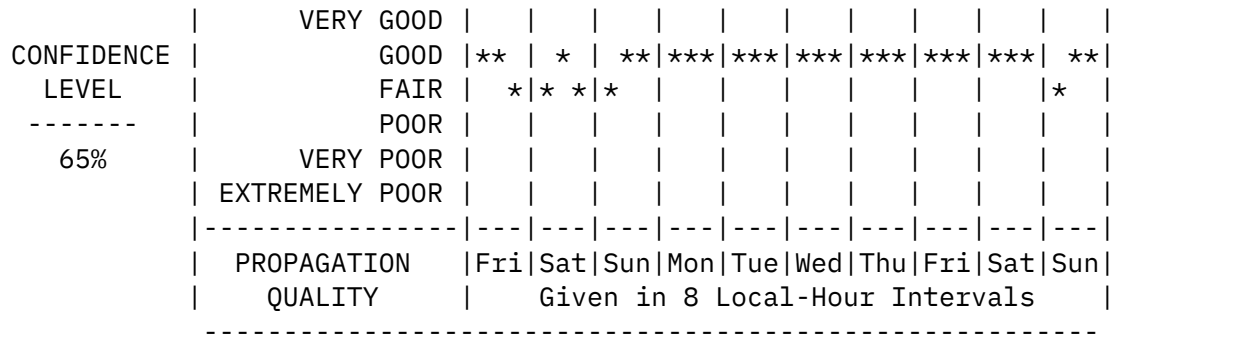
HF RADIO SIGNAL PROPAGATION PREDICTIONS (07 MAY - 16 MAY)

High Latitude Paths

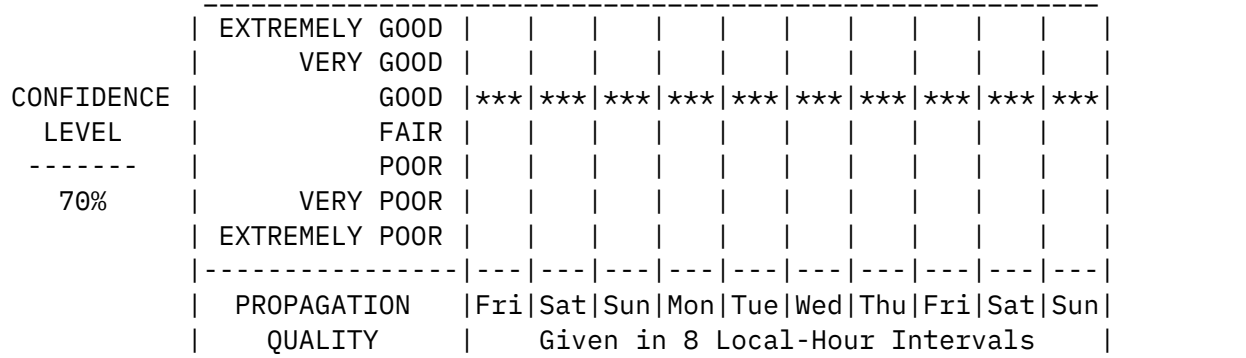
CONFIDENCE LEVEL	PROPAGATION QUALITY	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
	EXTREMELY GOOD										
	VERY GOOD										
	GOOD										
	FAIR	**		*	**	***	***	***	***	**	*
65%	POOR	*	**	* *	*					*	* *
	VERY POOR		*								
	EXTREMELY POOR										
		Given in 8 Local-Hour Intervals									

Middle Latitude Paths

EXTREMELY GOOD											



Low Latitude Paths



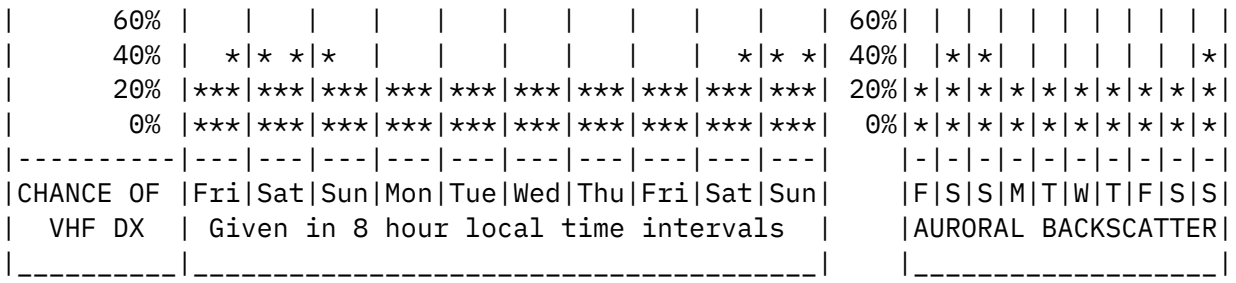
NOTES:

NORTHERN HEMISPHERE		SOUTHERN HEMISPHERE	
High latitudes	>= 55 deg. N.	High latitudes	>= 55 deg. S.
Middle latitudes	>= 40 < 55 deg. N.	Middle latitudes	>= 30 < 55 deg. S.
Low latitudes	< 40 deg. N.	Low latitudes	< 30 deg. S.

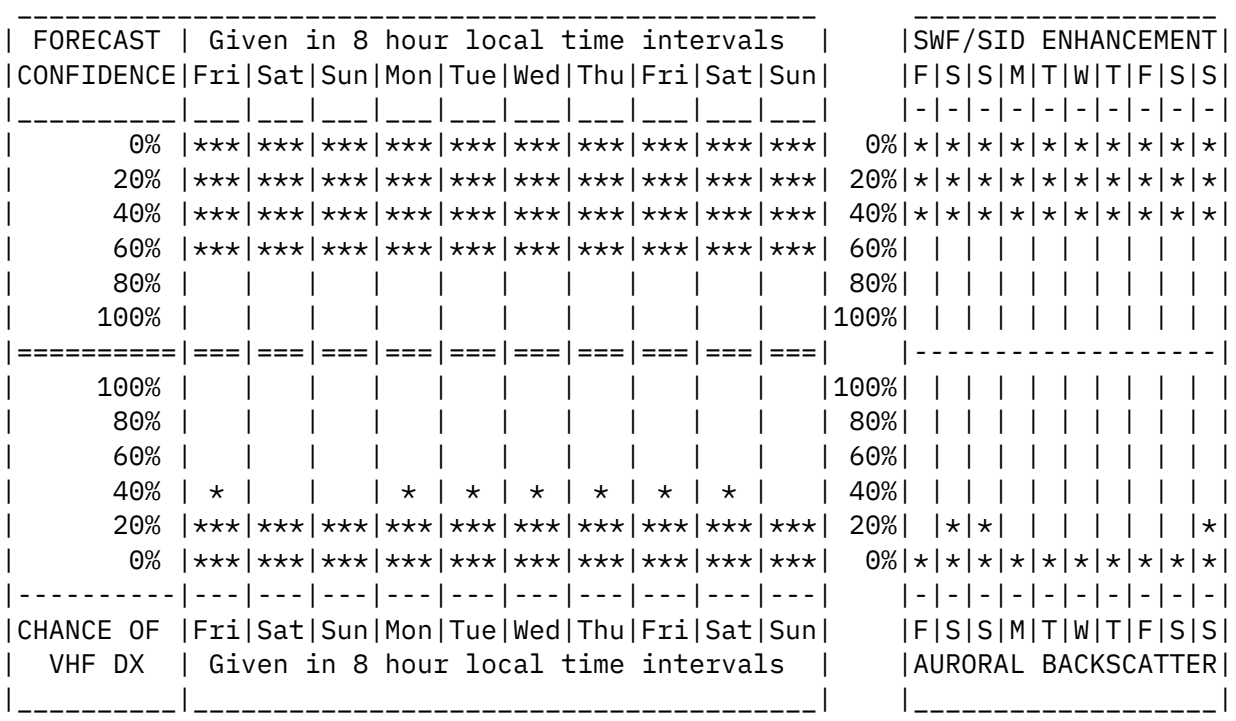
POTENTIAL VHF DX PROPAGATION PREDICTIONS (07 MAY - 16 MAY)
INCLUDES SID AND AURORAL BACKSCATTER ENHANCEMENT PREDICTIONS

HIGH LATITUDES

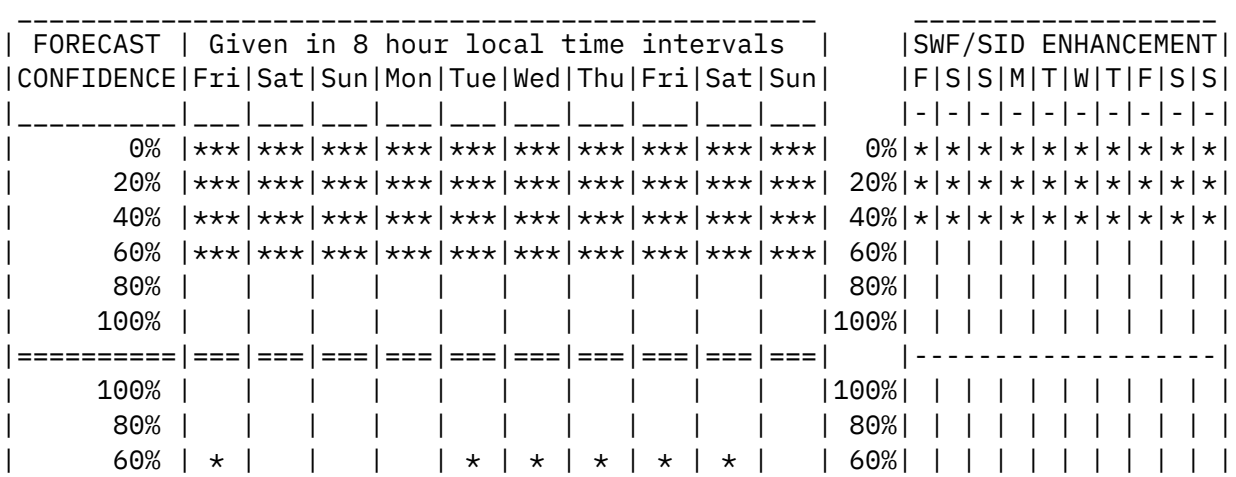
FORECAST CONFIDENCE	Given in 8 hour local time intervals Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	SWF/SID ENHANCEMENT F	S	S	M	T	W	T	F	S	S
0%	***	***	***	***	***	***	***	***	***	***	0%	*	*	*	*	*	*	*	*	*
20%	***	***	***	***	***	***	***	***	***	***	20%	*	*	*	*	*	*	*	*	*
40%	***	***	***	***	***	***	***	***	***	***	40%									
60%	**	*	**	***	***	***	***	***	**	*	60%									
80%											80%									
100%											100%									
100%											100%									
80%											80%									

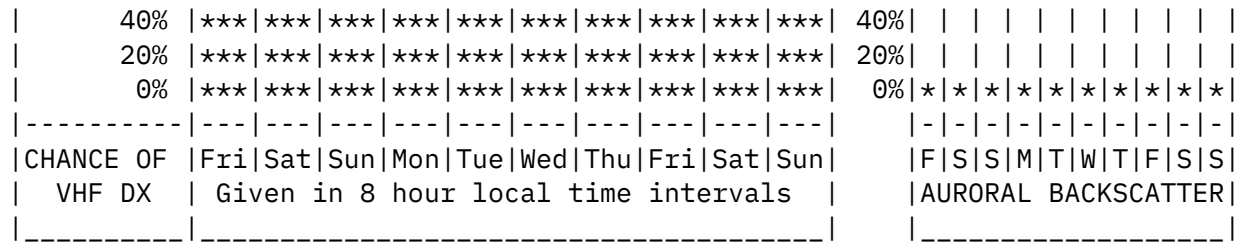


MIDDLE LATITUDES



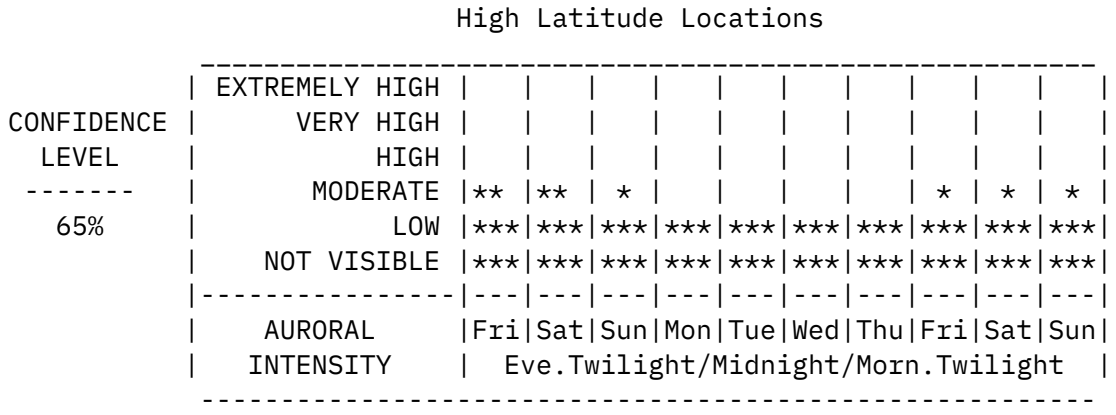
LOW LATITUDES

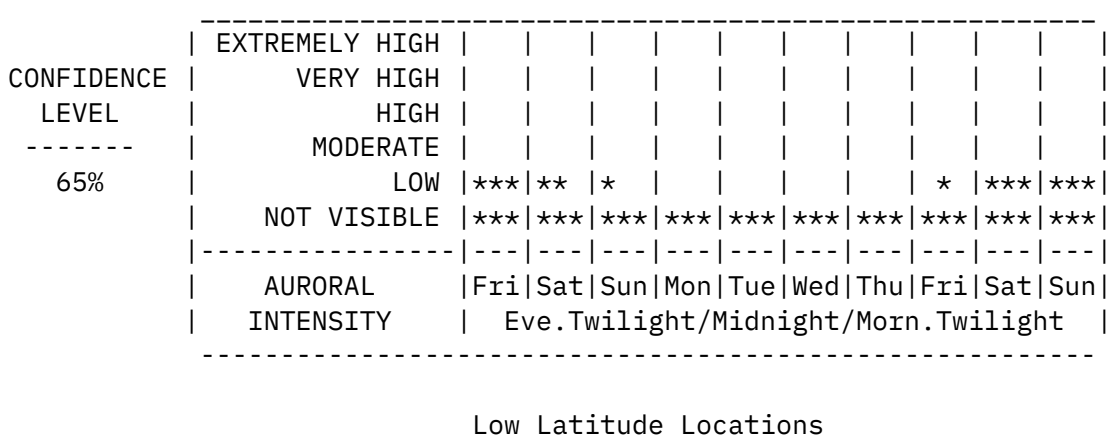


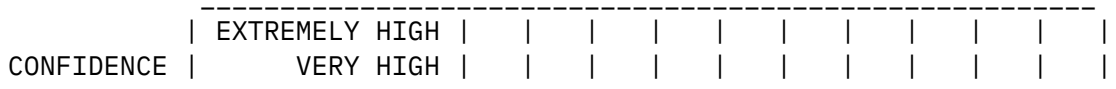


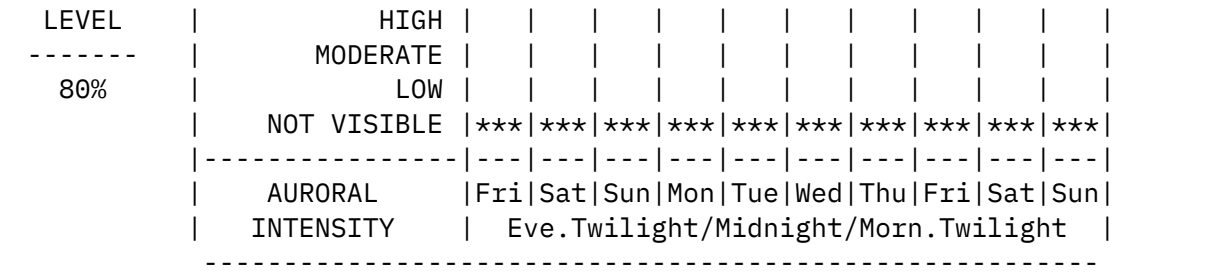
NOTES:
These VHF DX prediction charts are defined for the 30 MHz to 220 MHz bands. They are based primarily on phenomena which can affect VHF DX propagation globally. They should be used only as a guide to potential DX conditions on VHF bands. Latitudinal boundaries are the same as those for the HF predictions charts.

AURORAL ACTIVITY PREDICTIONS (07 MAY - 16 MAY)









NOTE:
A Dynamic Auroral Oval Simulation and Prediction Software Package is available to help make predictions and show the locations where auroral activity should be visible from the ground. For more information regarding this software, contact: "Oler@Rho.Uleth.CA", or "COler@Solar.Stanford.Edu".

For more information regarding these charts, send a request for the document, "Understanding Solar Terrestrial Reports" to: "Oler@Rho.Uleth.Ca" or to: "COler@Solar.Stanford.Edu". This document, as well as others and related data/forecasts exist on the STD BBS at: (403) 756-3008.

** End of Report **

End of Info-Hams Digest V93 #550
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